With the author's compl^ts

Syphilis, Preventive inoculation against.

A NEW VIEW

OF THE

ORIGIN AND PROPAGATION

OF THE

VENEREAL DISEASE:

SUCCESSFUL TREATMENT BY INOCULATION

DERIVED FROM A HITHERTO UNKNOWN SOURCE,

WITH

ILLUSTRATIVE CASES.

BY

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SURGEON TO MERCER'S AND THE WESTMORELAND LOCK HOSPITAL, DUBLIN.

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VENEREAL DISEASE.

No disease has, perhaps, been more anxiously discussed by the profession than that of Venereal, as from its peculiar nature its effects are so varied and its history is so frequently obscure.

While to the state it is a subject of no mean importance, from the injury done not only to our Army and Navy, whose efficiency is by it thus materially impaired, but also to the succeeding generation of those who may suffer from its wide-spread poison.

Epidemic diseases, though their immediate effects are limited fortunately to the individual, by their startling incidents and subtle effects at once rouse both the profession and the community to limit and combat their extension; but this poison is constantly and occultly disseminated and propagated not only to the recipients, but to their offspring.

The legislature will in time, no doubt, without partiality discuss the effects of the Contagious Disease Act so far as it has gone, and prove, despite prejudices, and by the stern force of practice against theory, how this Act has absolutely worked, and whether it has been effective even in its limited operation in restraining the extension of the disease.

Amongst the more prominent questions arising from an examination of the subject is the oft-debated one of the nature of the venereal poison, and if any light can be thrown on the

variation that has been observed in its influence on different individuals, some of whom suffer so severely, while with others its effect is transitory and apparently harmless. To aid in this object I propose to limit myself to actual practical observations and deductions from the large number of cases which I have had the opportunity of observing in the wards of the Lock Hospital, amounting to a total of 1,582 for the last two years, and to indicate a new source of contagion from which the usual soft or chancroid venereal sore is derived, as proved by numerous direct inoculations and experience. The origin and source of this contagion is the more interesting, since so much has been written and discussed as to its infecting or non-infecting nature, and as to its origin from a hard or "infecting sore," or a sore *sui generis*, and whether it may or may not be the initial point of true constitutional infection, and of the long and obstinate train of symptoms that not unusually supervenes.

Notwithstanding all that has been contended with regard to the nature of the venereal poison, and the theoretical views entertained as to its forms, or as to the existence of a special virus, yet, as the result of daily observation, I must record the remarkable fact that at this hospital *all* cases of primary sores, as a rule, are sooner or later followed by constitutional signs, often before the patients leave the hospital, and frequently before the healing of the primary affection. During the last year out of all my cases, whether tested by inoculation or otherwise, I have been able to find two only that, so far, have not shown decided evidences of infection. With us in Dublin it is evident from the hospital statistics that the poison predominating in the class through whom the disease is propagated is of a truly infecting character, and of an inveterate type; every day's experience confirms me in this view of the affection in this city, and army surgeons have frequently testified to the virulent nature of the disease contracted by the troops under their charge when stationed in Dublin, as compared with other military stations throughout the country.

The last Metropolitan Police Report gives the number of women known to the police in—

1865 as 1,078.
1866 ,, 1,031.
1867 ,, 1,047.
1868 ,, 969.

These figures only embrace such females as are well known; and it may be readily granted that they represent very imperfectly the

actual numbers. As the Westmoreland Lock Hospital is open to those who only voluntarily enter, and 805 admissions for various forms of contagion were registered in the hospital books this year, some idea may be formed of the immense amount of disease prevalent in Dublin amongst this class so dangerous to the community; a great number of whom seek medical relief at the various public institutions, and at the same time are daily communicating disease, and all our Hospital or Dispensary Surgeons can testify to the large number of male venereal cases which come under their notice.

The discrepancy amongst syphilographers as to the variations in the forms of the disease and its after consequences in the male and female, always seemed difficult of explanation, and led me to make a close examination by experiment as to its nature and origin in the patients under my charge at the hospital as compared with male patients met with in private and in general hospital practice. I could not fail to observe that in this city, the frequency of chancroid or soft sores in the male uncomplicated with constitutional signs, was excessive in proportion to those cases in the female who suffered from genital sores, while on the other hand the frequency of constitutional symptoms in the female was excessive in proportion to the male. Some reason I had no doubt existed for these peculiarities, either in the transmissibility of sores in diverse forms, or that other sources of contagion existed than in the sore itself.

The frequent coexistence of a vaginal discharge of a mucopurulent or purulent form with the earlier stages of constitutional syphilis, afforded, I thought, some clue to the solution of this question, and led me to make some experiments, the result of which I have shown in the series of cases which I tested. By those it appears that the product of the vaginal discharge of a patient suffering from syphilitic infection, is a chancroid or soft sore, when the discharge is introduced under the skin or applied to an abraded surface. It is also shown that this sore is propagated as a chancroid or soft sore, and is again (so far as my experiments went) capable of indefinite propagation still as a soft sore or chancroid. This is amply proved by the case related in Series No. 1, where, after the expiration of two months' confinement to the hospital—the mucopurulent and apparently innocuous discharge of a patient—not showing even at that date any evidences of constitutional infection, was capable when inoculated, of producing the well-marked chancroid of Series No. 2, from which in its turn, I inoculated several other patients, producing always a chancroid in appearance. The

patient from whose secretion this chancroid was produced, very shortly afterwards showed abundant and unmistakable infection signs while still in the hospital.

A more remarkable power possessed by this vaginal secretion is the production of a chancroid by inoculation on the patient's own person; the fact is interesting when demonstrated so evidently as in Series 3. Here a chancroid was produced in an intensely syphilized patient from her own vaginal discharge; from this another was produced on the patient herself, and from this product contagion was obtained (and could be obtained, I have no doubt, to an indefinite extent), having all the characters of a chancroid. It is remarkable that the primary sore from which this patient was suffering was itself incapable of auto-inoculation practised on two occasions, one previous to the formation of the artificial chancroid, and the other afterwards. The muco-purulent vaginal discharge seemed to be the true source of this contagion virus.

I have on several occasions taken the secretion as wiped from the os uteri and inoculated unsuccessfully with it, while from the vaginal discharge I have been successful.

I have inoculated from the vaginal secretion of cases of uterine ulcer and from the ulcers themselves without any result.

I have also inoculated the gonorrheal discharge of the male without result.

In all my inoculations the result has invariably been the characteristic pustule and soft or chancroid sore, capable of reproduction; the question therefore arises, was the original affection a chancroid or soft sore capable of infecting the system, or a hard sore, which is admittedly so capable? I cannot give any information on the latter point, as unfortunately in the only two cases of hard sore which have been admitted to the hospital during the last eight months I did not inoculate. So as to be capable of transmitting a sore by inoculation from the vaginal secretion it seems necessary that the patient must be suffering from the earlier stages of constitutional infection, whether as yet latent or developed; thus, in Series 1, at the time of producing characteristic inoculation, the patient had no evidence whatever beyond a suppurating bubo that seemed to be a "bubon d'emblée," as there was no sore discoverable on frequent speculum examination, yet shortly afterwards marked constitutional infection signs appeared. In the other cases I have given, constitutional evidences

were abundant, and, as in Series 3, were intensely marked indeed, yet the resulting sore was the characteristic and inoculative chancroid.

That the vaginal secretion retains this power for a considerable time after the healing of the primary sore or the appearance of the first constitutional evidence is amply proved by Series 3 and 5, where, in even three months after the first symptoms the specific inoculation could be performed. With regard to the transmission of the constitutional poison under the various form of sores, be they soft or hard, Ricord himself, in his "Lectures on Chancre," though at the time an avowed advocate of the dual virus, remarks, p. 144:—

"You see, gentlemen, that these facts agree, and cannot leave any doubt on the infecting character that the chancre with a soft base (*chancroid*) can, under certain circumstances, assume, when developed on a previously infected individual. It therefore now seems proved, contrary to former doctrines, that a syphilitic subject who contracts a fresh chancre (*alluding to chancroid*) may transmit the syphilis."

Here it is admitted that a fresh chancroid on a syphilitic subject is capable of transmitting the syphilis, how much more reasonable is it to suppose that, as in Series 2, the product of an already syphilitic subject derived from another also syphilitic, would, if communicated to the virgin soil of an uninfected subject, produce a chancroid in appearance, yet be infecting in its property.

Again, in Series 3, where the second generation of the seed sown and matured in the parent soil of a thoroughly infected subject, was capable of propagation as a chancroid, it is still more reasonable to suppose that the result to a previously untainted subject would be the appearance of a chancroid, but accompanied by thorough contamination, unless, indeed, we believe that some peculiarities of constitution in the recipient were capable of modifying the poison.

My inoculations have been always made on previously infected subjects, as I did not, of course, feel myself justified in directly inoculating from others already undoubtedly tainted. I therefore cannot prove by actual experiment that the result of such inoculation in an untainted case would be the chancroid in appearance, though having the contaminating virus of the true infecting sore. For my own part, from seeing instances of soft sore in the male followed by constitutional signs, I find no difficulty in assuming this to be the case.

As to the question of the origin of the soft sore of infecting character, Ricord also remarks:—

"We now have to elucidate the following question:—Does the soft chancre of a syphilitic patient, which is capable of transmitting syphilis to a healthy subject, necessarily derive its origin from an indurated chancre, or does some special, though still *unknown condition*, exist which invests the soft chancre developed under these conditions, and *what ever may be its origin*, with the infecting character which only appertains to the indurated sore."

He adds—"There already exist a certain number of observations which tend to prove that the soft chancre of a syphilitic subject may also transmit itself in its own species, that is to say, as a soft chancre."

In all the inoculations I made the products from the artificially generated chancroid was a chancroid, though generated from and on syphilitic subjects.

With regard to the propagative property of the poison in women, it might be supposed that once the sore is healed there is no further danger of a sore being communicated, which (even a chancroid, as I believe it might appear in an untainted subject) would be lethal to the system by conveying the syphilitic poison. This error the illustrative cases show fully would be a serious one, as the non-existence of a genital sore in the female is no absolute guarantee of the non-existence of contagion power.

Series 3 proves this very definitely. On the 23rd May the first auto-inoculation from her vaginal secretion was performed; and on June 20th, twenty-eight days after the first inoculation, and from two to three weeks after the healing of the primary sore, I successfully inoculated Case 1,060 from the vaginal discharge, producing a characteristic and vigorous chancroid pustule about three and a half months after her first perception of the primary sore. This is to be borne in mind, with respect to the conduct of inspections under the Contagious Diseases Act, as it might be supposed that freedom from primary or actual sore obtained freedom from contagion, yet a vaginal discharge in a syphilitic patient might be overlooked. I am rather inclined to believe that one reason for the comparative frequency of the occurrence of soft or chancroid sores on the continent, and where Governmental supervision is exercised, is due to the fact that primary and external sores are at once detected on inspection, and the patient is confined to hospital till cured—but that the vaginal discharge is overlooked, or its discovery guarded against by the patient.

It by no means follows that this secretion need be very purulent in its appearance. In Series 1, the secretion was a muco-pus, also in Series 3; and on microscopic examination contained a vast quantity of epithelium, with pus globules scattered here and there. As it is to the pus cells that the contagious property of the disease is due, the small admixture of these with the vaginal mucous explains, I think, how it is that lapses or failures are apt to take place in the practice of inoculation from this source; and also how frequently, no doubt, contagion is not communicated in cöitu, even where there is the favourable opportunity of an accidental breach of surface, and point of entrance for the poison. As to the frequent co-existence of a vaginal or apparently gonorrheal discharge, with secondary symptoms, I have received from the Government Lock Hospital, Cork, valuable evidence. Thus, of 326 cases treated in the hospital since June 15, 1869, "about 100 were cases of sores, the remainder 226 were cases of gonorrhea, several of which were complicated with the various forms of secondaries—the majority of the complications being mucous tubercles on and around the vulva."

This is very frequently the case in Dublin also, the appearance of the mucous tubercles being invariably followed by rash, pains, and other constitutional evidences; and as in Series 4, where inoculation from a patient (No. 1,093) so affected was performed, the discharge, *or gonorrhea*, as it might be called, was capable of producing the characteristic chancroid pustule when introduced under the skin.

The question of mediate contagion, though it may be possible, is, I think, much more due to the inoculability of the discharge than to the fact of an inoculable foreign poison, which must necessarily be in exceedingly small quantity, being retained in the canal. In the experiments of Cullerier, where, after the introduction of some inoculable poison on a spatula, auto-inoculation was successfully performed, it is not easy to imagine that the *very* particle that had been introduced thirty-five minutes previously, and where the patient was compelled, meanwhile, to walk about, could be again obtained when the great extent of the vaginal mucous membrane surface, is considered, which was, as described at the time, "reddened, and smeared with an abundant muco-purulent secretion."

One of the patients was suffering from inguinal ulcers, and vaginal discharge, just as that mentioned in Series 1, having undoubtedly syphilis; yet in the latter the inoculation produced a

true chancroid, without mediate contagion, while in other instances it failed—as where the negative inoculation was performed by M. Cullerier, previous to the introduction of the mediate poison.

The case of mediate inoculation is thus given by M. Cullerier:—

"A woman entered hospital with inguinal ulcerations, and considerable surrounding inflammation. The vagina was reddened, and smeared with an abundant mucopurulent secretion, but its mucous surface was intact, and os uteri healthy.

"M. Cullerier collected on a spatula a considerable quantity of pus from the inguinal ulcers, and deposited it in the vagina, having previously inoculated without success from the vaginal secretion. The patient was then directed to walk about, under surveillance, for thirty-five minutes, when some of the fluid found in the vagina was inoculated on her thigh, producing in two days a specific pustule."

In this experiment there is no proof whatever adduced that the inguinal ulcers were inoculable at all. To be perfect as a trial, they should have been tested, and as it is not said they were the sores left by suppurating bubos, the question is an open one if they were really inoculable. The explanation is, I think, more likely, that the vaginal discharge was inoculable.

I have found the following variations in the conduct of these inoculations:—

The activity of the discharge seems to vary—thus, immediately before or after the menstrual period it is less active.

The same discharge would succeed in some cases and not in others, and though failing to produce a specific pustule one day it would on another.

As in vaccination, the admixture of a little blood in making the inoculation generally rendered it nugatory.

The more robust and vigorous the patient, the more perfect was the inoculation, and the more persistent it became, being indeed difficult to heal.

Every succeeding generation from the vaginal discharge seemed progressively to increase in inoculative power.

The more infected the recipient the more difficult to inoculate, and the greater the tendency to heal.

Every succeeding inoculation on the patient's own person seemed to increase in inoculative power.

The following experiments, carefully conducted, prove the inoculability of some vaginal discharges, and the production of chancroid or soft non-infecting sores, so called, from this source,

from patients already syphilized, upon others also thoroughly under the influence of the poison:—

Series No. 1.—*Inoculation with Vaginal Muco-purulent Discharge from a Patient not having a Sore, performed on a girl Eight Years old, suffering from Vulval Condylomata—Production of a Typical Soft Sore on the Abdomen—Propagation of Chancroids from this Sore—Auto-inoculation from a Bubo—Re-inoculation from this source.*

Case No. 1,024—Ward 2—aged eighteen, a very well conditioned girl, having only left her home in the country six months before, was admitted on April 2, 1870, suffering from a very large suppurating bubo of the left groin, rather below Poupart's ligament, but having no sore, and not being aware of ever having had one. I opened the bubo, which was painful, and contained a large quantity of pus. After a fortnight a speculum examination was made, but no sore discovered; but there was some vaginal discharge of a semi-purulent character.

May 6th.—A sore was observed forming on the abdomen opposite to the orifice of the bubo, which was still unclosed; this ulcer in a few days assumed all the characteristics of a soft sore or chancroid. By speculum examination, repeated on ten different occasions, no sore, either vaginal or uterine, could be discovered.

On the 19th of May, 1870, I inoculated the right side of the abdomen from the naturally auto-inoculated sore, caused by the irritation of the discharge from the bubo; this formed a most characteristic pustule with depressed centre; it then ulcerated, and finally presented the aspect shown in the drawing taken by Mr. Mackay on June 14th. All the characters of a chancroid are well seen—the peculiar edge, irregular surface, and copious discharge; this sore is now twenty-six days old since the date of my inoculation.

From this sore I inoculated on the abdomen, Case 1,093, on June 13th; producing a specific pustule and ulcer of a well-marked character.

Thus far the history is clear. First—Of the discharge from a bubo causing a sore by apposition. Second—Of an inoculable sore procured from this source. Third—Of the transmission of this sore, the second generation of a suppurating bubo, to another person already syphilized, producing a characteristic pustule and sore as the third generation.

The most interesting and startling point with regard to this case is, however, the inoculability of the vaginal discharge, which I proved thus on a girl in a separate ward.

Having had the patient under my observation, and confined to hospital for exactly two months; having by frequent and careful speculum examinations satisfied myself that there was no possibility

of an intravaginal sore, and that but a very little muco-purulent discharge alone existed. On the 2nd June I removed some of the vaginal secretion through a speculum, taking care that it did not even touch any external part, and I inoculated with it on the abdomen, a girl eight years old, No. 1,140, suffering only from vulval condylomata, with a very clean and clear skin; this produced a most characteristic pustule, and became on the fifth day a perfectly formed ulcer.

On June 11th, *i.e.*, nine days after the inoculation from the *vaginal secretion*, I showed this girl at the Obstetrical Society of Ireland. The drawing taken on June 14th (twelve days after inoculation) shows well the similitude to the artificial and directly inoculated sore of No. 1,024.

On June 14th, the sore caused by the bubo inoculation was quite healed, having existed about thirty-five days. Papulo squamous rash also appeared on the arms, the chest, the thighs, and the loins; the hair commenced falling out, and a slight irritic attack showed itself. There is still a general murkiness of skin, but the health is immensely improved; the second inoculated sore shows as yet but little inclination to heal.

June 9th.—I inoculated from the vaginal mucus, case No. 1,158, not suffering from any constitutional signs whatever, but with a negative effect.

On June 10th I inoculated also from the vaginal secretion, which did not appear purulent, case 1,093, suffering from a copious rash and patches, but with negative effect.

On June 13th I inoculated the same patient, No. 1,093, from the artificial inoculation, and produced a characteristic pustule.

The chancroid in this patient, that was artificially produced from the first sore, which was the result of the spontaneous inoculation from the bubo, was much the most obstinate in its character and most marked in its appearance.

The patient at the date of this report, June 25th, is still in hospital, and improving rapidly.

Discharged free from signs, July 4, being 93 days under treatment.

SERIES No. 2.—*Chancroid Grafted on an already Infected Patient from the Vaginal Discharge of a Patient without a sore, and who, though not at the time showing Infection Signs, did so while in the Hospital—Communicability of this artificial product.*

No. 1,118.—A girl eight years of age, was admitted May 18th, Ward 8, suffering from condylomata of the vulva and anus; there was no rash

SERIES 1

CASE 1,024

SERIES 2

CASE 1,140

SERIES 3

CASE 988

OLDHAM, *fecit.*

SERIES 1.—Sore produced by inoculation from another sore, itself produced by inoculation from a suppurating bubo as the only lesion.

SERIES 2.—Sore produced by artificial inoculation from the vaginal discharge of Series 1.

SERIES 3.—Sore produced by artificial inoculation from another sore produced from vaginal discharge.

whatever, but she had an ulceration of the arm of a gummatous character. The history of the case points to her having been infected by her sister, a married woman, who had been in the hospital under my care this year, for very copious mucous patches of the mouth and labia. Her husband, to whom she had been married but a few months, I saw also; he was suffering from mucous patches of the mouth, and admitted having had a sore and suppurating bubo five months before his marriage.

This girl I inoculated on June 2nd with the vaginal secretion of No. 1,024, Series No. 1, taking it carefully by means of a speculum, as before mentioned. A most characteristic pustule and sore was produced. The appearance, as shown in the illustration, exactly represents a chancroid or soft sore of a large size.

There was no possibility of any accidental contact with a sore, as the part was carefully guarded by a watch glass, and the progress of the inoculation till the formation of a perfect typical sore was most regular. The drawing was taken twelve days after the inoculation.

In order to test the specific nature of this inoculated sore, on June 12th I introduced some of the discharge from the surface on the point of a pin on the right side of abdomen of case 1,085, a woman suffering only from a primary sore, from which I had successfully inoculated herself two weeks before on the left side of the abdomen, and produced a most characteristic pustule and sore. Still further to try the communicability of this artificial sore, I tested the patient No. 1,000, suffering from intense syphilitic poisoning, a most abundant rash, and recently having had a suppurating bubo.

On June 10th I inoculated on the left side of the abdomen.

On June 12th I inoculated on the right; both of these produced deep characteristic pus-secreting sores; but the true pustular stage was imperfectly marked in this patient.

On June 12th I inoculated 1,159 from the artificial sore, producing a well-marked chancroid with the pustular stage also hardly marked.

It is evident that in these two instances the artificially produced inoculations were equally contagious; the one, Series No. 1, produced from the offspring of a suppurating bubo in the same person, and the other, Series No. 2, produced in another person from the vaginal muco pus; these sores could, of course, be reproduced indefinitely. Supposing that either of these or similar cases communicated a sore to a male, I cannot doubt it would have every resemblance, as shown in the illustration, to a soft or chancroid sore so called; but I also cannot doubt it would be an infecting sore, having originated in the 1st series from the vaginal muco pus only of a patient showing, subsequently, undoubted signs of infection; and in the 2nd series having a double contamination, first, from the source of origin, the vaginal muco pus of an infected patient, and then

of the already infected patient, on whom the poison was grafted, and, as in this instance, already suffering from constitutional evidences. Experiments thus go far to explain simply how it is that constitutional evidences have been seen to follow soft or chancroid sores.

The health of this girl rapidly improved, and the condylomata healed, but the artificial chancroid still exists, July 6th.

Discharged perfectly free from any signs, August 5th, 1870, being eighty days under treatment.

SERIES No. 3.—*Inoculation from the Vaginal Discharge of an Intensely Syphilized Patient, produced on her own person 63 days after admission—Auto-re-inoculation from this artificial sore—Inoculability of this second product—Non-inoculability of the Primary Sore—Suppurating Bubo—Papular Rash—Nocturnal Pains—and Intense Cachexia—Rapid Improvement of the Health subsequent to Inoculation.*

In Series No. 2, the development of a contagious sore from inoculation with a vaginal discharge is sufficiently evident, where the vaginal secretion was inoculated on a different person. A more interesting and curious circumstance with regard to communicability is that of the formation of a contagious sore on the patient from her own vaginal discharge, and the capability of this sore, so produced, to give birth to a second, and this of being propagated indefinitely.

Case No. 988, admitted March 21, 1870, aged hardly 18 years, left home in the country about four months before her admission; during that time she got a severe inflammation, apparently of a strumous nature, from which she lost the eye. About three weeks previous to admission she observed a sore on the left labium—not painful, pus-secreting, and equalling a florin in size, without the slightest induration; a painful bubo was formed in the left groin, which suppurated shortly after admission, and from which I produced a characteristic, but feebly marked pustule and sore on the abdomen.

In four weeks after her admission a copious coppery roseolar and papular rash appeared; she became intensely cachectic, racked with pains, had sweatings, and was thoroughly prostrated by the syphilitic poison.

She was treated up to this by tonics, good diet, iodide of potassium, and iron; the stomach became very irritable, and it was impossible to give any internal medicine, even a creasote mixture was intolerable.

I therefore used the cautious and careful inunction of 10 grains of mercurial ointment every afternoon. Under this treatment, after ten days, there was some improvement in the general symptoms.

On the 23rd May (being sixty-three days from her admission), I had the patient, who was extremely weak and prostrate, carried to the table, and on speculum examination, found a rather copious vaginal muco-purulent secretion. I removed some of this through the speculum, and washed out and examined the vagina and uterine neck; there was not the slightest breach of surface, or even irritation; I inoculated the left side of the abdomen with this pus, and produced a very well marked, but not large, characteristic pustule.

On May 28th, in order to test the inoculability of the primary sore, I collected from the surface a copious charge of pus, with which I inoculated the abdomen, but with a negative result.

On June 3rd, being ten days from the date of the inoculation from the vaginal discharge, I inoculated the right side of the abdomen from the artificially formed sore, and produced a more perfect and vigorous pustule than in the first instance. This I refreshed on June 9th with her own vaginal discharge, and the drawing taken on June 16th shows well the specific appearance of this sore, which poured out copious pus, and from which I performed the following inoculations, amply proving the contagious property of this second transmitted product of a vaginal discharge on the patient's own person while suffering from intense syphilitic intoxication.

June 7th, being four days after the introduction of the second virus, I inoculated Case No. 1,075 with the pus from this second inoculation, having first allowed it to dry. Whether from this cause, or the early stage of the pustule, or some accidental mal-performance of the inoculation, it did not succeed satisfactorily, fading away in three days.

June 9th, I inoculated from her vaginal discharge Case 1,159, already syphilitic, but with ill-formed result, fading in three days.

June 10th, three days afterwards; inoculated a weak cachectic patient, No. 1,163, suffering from copious papular rash, and produced a characteristic, small, well-shaped, pus-secreting ulcer on the abdomen, the exact resemblance of the parent source.

June 11th, I inoculated with the same No. 1,169 (suffering from both primary sore and copious rash), having first allowed the pus to dry, but possibly from this cause, did not succeed satisfactorily, the pustule being abortive.

June 12th, I inoculated with the same, Case No. 1,112, suffering from what might be termed a true typical sore on the right labium, but without induration, with somewhat indurated inguinal glands on the right side, and copious papular rash appearing at the same time. This inoculation was most successful—producing a pustule and marked chancroid; of which the illustration is very perfect, as taken two days after the inoculation, showing the pustule and peculiar inflamed base.

This series shows the inoculability of a vaginal discharge on the *patient's self;* the re-inoculability of this artificial sore on the *patient's self;*

the propagation of this sore to other patients suffering from syphilitic manifestations, as No. 1,112 and No. 1,163.

The improvement of this girl's health from the period of the inoculations was most remarkable. She is now, June 18th, almost without a symptom, though taking no medicine. Wine stimulants, good diet, have been freely given.

On June 23rd, I again inoculated her from her own vaginal discharge, and produced by the 28th a regular characteristic pustule, being now three months after admission to hospital. On the same day I inoculated from the same source, No. 1,060, with success, and No. 1,093 without success.

During the last two years no more intense case of true primary syphilitic intoxication has been in the hospital, and, though contrary to received theory, she suffered from a very large suppurating bubo on the same side as the sore, which had not the slightest induration, it secreted pus freely, was painful, and extensive, having all the characters attributed to the soft non-infecting sore, but when tested auto-inoculation failed.

Discharged, August 1st, perfectly free from all signs, having been 133 days under treatment.

SERIES No. 4.—*Primary Sore—Non-indurated—Roseolar and Papular Rash—No Inguinal Enlargements—Inoculation from a Vaginal Discharge—Formation of Characteristic Pustule—and Soft Sore—Cure of the Constitutional Signs.*

No. 1,075, a remarkably strong healthy-looking girl of 21, who had been a domestic servant till within two months, was admitted April 27, 1870. Ward No. 2.

About one week previously she felt a sore at the fourchette. On examination, this is ragged, pus-secreting, and painful; there are no inguinal enlargements whatever, and there is some slight discharge; but the rent at the fourchette is too sore to allow the use of the speculum.

On May 26th, being thirty-six days since first observing the sore, roseolar blotches appeared on the body and face, and in a few days more some scattered papules also were seen; the throat became patchy and painful.

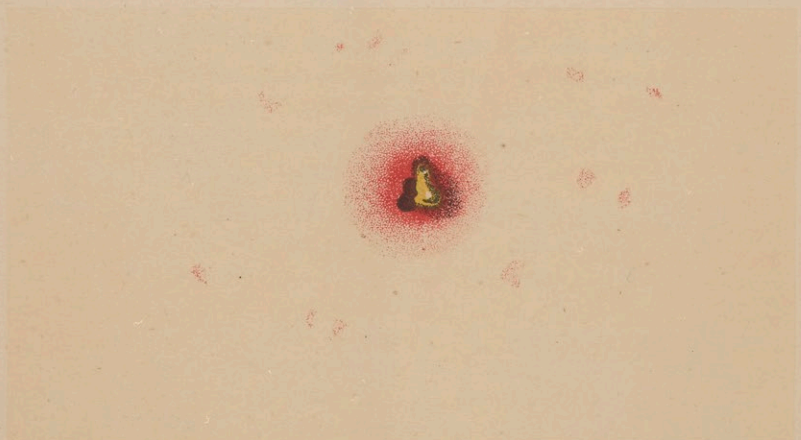
On May 31st, I inoculated her with her own vaginal discharge, using the speculum to see that the vagina was free from any sore. The result was negative, but some redness and anger appeared at the site of the inoculations for the first two days.

On June 7th, I inoculated from the artificially produced sore of No. 988, Series 3, but with negative result, as before detailed.

On June 10th, I inoculated again from the vaginal discharge of another

SERIES 4 — CASE 1,075

SERIES 5 — CASE 1,112



SERIES 6 — CASE 1,060

OLDHAM, *fecit.*

SERIES 4.—Pustule produced from a vaginal discharge, as seen 24 hours after inoculation.

SERIES 5.—Pustule produced from a sore which was derived from another sore inoculated from the patient's own vaginal discharge.

SERIES 6.—Pustule produced by inoculation with the patient's own vaginal discharge.

patient, No. 1,098, suffering from marked syphilitic signs, but also with negative result.

On June 12th, I inoculated from the artificially propagated chancroid of the girl aged eight, forming the subject of Series No. 2, but with a negative result.

Being now pretty certain that there was some accidental miss about these inoculations, on June 13, I inoculated her from Case No. 1,093, a strong very dark skinned girl, having no sore, but suffering from copious mucous patches, discharge, papular rash, and pains, and having had, with the primary, two months previously, a suppurating bubo; the extensive scar of which is very visible. This inoculation was a perfect success, the pustular stage, after twenty-four hours, is well shown by the drawing, taken at the expiration of this time, a perfect chancroid, as large as 6d. formed. The patient rapidly improved from the date of re-inoculation, and the rash completely disappeared. I did not think it necessary to test the inoculability of this artificial sore further, as the appearance was so perfectly marked.

On July 7th, I inoculated this patient from the vaginal discharge of Series 12, forming a perfect pustule and sore.

This case shows that failures may occasionally and accidentally occur; thus the virus of Nos. 988 and 1,118 failed at the first trial, while that of 1,093 had failed with other patients, though it succeeded admirably in this instance.

Discharged perfectly free from all signs, July 4th, 1870, having been 68 days under treatment.

Series No. 5.—*Primary Sore of the Right Labium—Non-indurated, but presenting the general appearances of an infecting Sore—Tender and Indurated Inguinal Glands on the same side—Copious Papular Rash evolving itself—Primary Sore resisting Inoculation—Inoculation from a Vaginal Discharge.*

Patient aged twenty-two, No. 1,112, married, has a healthy child living; her husband died of phthisis two years since; four months ago went on town, and first felt a sore one week before admission, on May 13, 1870. She is now in tolerably good general condition, and has a sore about the size of a fourpenny piece on the labium, with non-indurated base, but having a clean surface, secreting but little pus, and resembling the general appearance of an infecting sore, minus induration, or even a parchment thickening; a slight enlargement could already be felt in the inguinal region, and the glands became rather dense.

May 16th.—I inoculated her on the side from this sore when unirritated, but without success.

May 23rd. —Some murkiness and rash is appearing about the face.

May 31st.—I inoculated with gonorrheal matter from a male patient, but without success.

June 3rd.—I inoculated from her own vaginal secretion, which is hardly a pus secretion, with negative result.

June 7th.—I inoculated with the vaginal muco-pus of a girl aged seventeen, No. 1,140—suffering from patches of the vulva, with purpuric, and lichenous spots—with this I produced a characteristic, but not vigorous pustule, which faded and dried up by the 12th of June.

A copious papular rash had now showed itself on the face and limbs.

June 12th.—I now inoculated from the second artificially produced pustule of 988, Series 3, being the grandchild, so to speak, of a vaginal discharge, and it produced, by the 16th, the well-marked pustule shown in the illustration—the angry base—depressed centre and peculiar pustule is very typical indeed.

On June 13th, I inoculated the other side from the vaginal discharge of Case, No. 1,093, but with a negative result; yet on the same day, and from the same patient, I also inoculated the case represented in Series 4, with a perfect result; showing, I think, some informality in this inoculation.

On June 16th, I performed a most interesting experiment. A patient, No. 911, who had been for over three months in the laundry of the Institution, and who had been nearly two months under my care, in the hospital, previously (so that she was under observation and absolute restriction for more than five months), and had no sore for over four months, came under my care again, with papular rash, alopecia, and patchy ulceration of the throat. I made a vaginal examination and found a muco-purulent discharge still existing; with this I inoculated, the subject of this Series, on the opposite side of the abdomen, and produced a most characteristic pustule and well-marked sore.

On June 27th, I inoculated the patient from the vaginal discharge of the patient, forming Series 11, and produced a most characteristic pustule and chancroid.

There is no doubt but that this pustular sore, of June 16th, the offspring of the vaginal discharge, of an intensely syphilitic woman, in another intensely syphilitic, was indefinitely transmissible, and that also the former inoculation of June 12th, as the 2nd product of the infected patient, series 3, grafted on this other equally intensely infected, was also indefinitely transmissible.

If either of these double distilled poisons were communicated to a healthy male, it might surely be predicated that though the appearance would be that of a soft sore, it would communicate the taint. Yet what is here demonstrated experimentally and artificially,

I have no doubt, does frequently occur, as I have often seen non-indurated sores and suppurating bubos, and inoculable sores, followed by constitutional signs in the female, and not very rarely in the male.

Series No. 6.—*Inflammation of the Labia—Condylomata—Papular Rash—Vaginal Discharge—Disappearance of the Rash under Inoculation—Treatment.*

No. 1,060.—A strong girl, aged nineteen, about twelve months on the town, and never before diseased; was admitted April 22, 1870—Ward 2.

She had observed, one month before, a sore at the labium, which was not very painful. She has now inflamed and tumid labia, patchy sores, and elevated condylomata, and a papular rash.

There was a large surface of elevated pale patchy sores between the labium and the thigh, and, on vaginal examination with the speculum, no sore or abrasion could be detected, but there was an appreciable amount of muco-purulent discharge.

On May 30, a sore was observed on the mons veneris opposite to one of the ulcerated mucous patches on the thigh, having much the appearance of a soft sore; from it I inoculated the abdomen, and on June 3, a small pustule formed; but by June 7 had died away.

June 7.—I inoculated the other side of the abdomen from her own vaginal secretion, which was then not very abundant; this formed a well-marked pustule with depressed centre and somewhat inflamed base—the drawing of which was taken on the 14th June—seven days after the inoculation. The next day this burst and gradually dried up, the small ulcer, left by it, healing up by the 20th. The entire stage of this sluggish, but not abortive inoculation, being thirteen days.

June 16.—I inoculated with the vaginal discharge of No. 1,093, being the same day that I inoculated so successfully, the pustule represented in the drawing, Series 4, from the same source, but produced no pustule.

June 17.—I coated the almost dry inoculation of June 7 with the vaginal muco-pus of 1,024, Series 1, without any effect.

June 25.—I inoculated in two places the abdomen with vaginal secretion, now hardly purulent, of 988, Series 3, now three months since her admission, and produced most characteristic pustules and sores, equalling a shilling in size, which are well represented in the illustration, after they had partially coalesced.

The rash had quite disappeared by July 6; the mucous patches and labial tumefaction still partially existed.

SERIES No. 7.—*Inoculation from a Sore, the product of Vaginal Discharge—Disappearance of the Rash.*

No. 1,159, was admitted June 4, 1870, aged 26, rather broken down in health, and the mother of a remarkably healthy child, born before her first infection in June, 1868. On that occasion she had a well-marked ulcer on the uterus and on the back part of the vagina, followed by most intense papular rash and cachexia.

The stains of the rash are still seen, and there is a slight but marked fresh outbreak. She has a little vaginal discharge, and on speculum examination there is no sore or abrasion to be seen.

June 8th, I inoculated, from her own vaginal secretion, unsuccessfully.

June 9th, inoculated from vaginal discharge of 988, without success.

June 12th, I inoculated, from the artificially-produced sore of the girl No. 1,118, Series 2, aged 8, which had been artificially produced from a vaginal discharge, Series 1. This produced a most characteristic pustule and sore, with sharp cut edge pouring out abundant pus, and no doubt indefinitely communicable.

June 20, inoculated, with a pin, from her own vaginal discharge, but without result, a small ulceration simply following.

The inoculation of June 12 was then a perfect chancroid. Her condition became much improved, and the rash disappeared.

Left hospital, June 27th, 1870, with the inoculation unhealed.

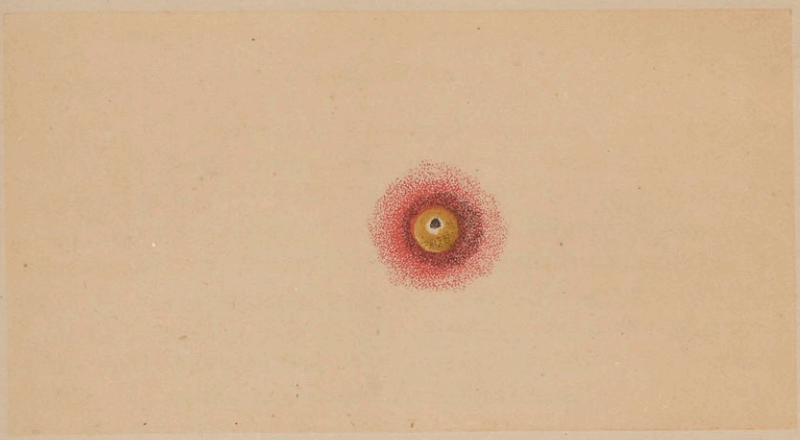
SERIES No. 8.—*Inoculation from a Sore of the Second Descent from the Vaginal Secretion of a Patient while suffering intense Syphilitic Intoxication* (Series 3), *on another Patient intensely Syphilitic —Production of Characteristic Pustule and Soft Sharp-edged Sore, Secreting abundant Pus—Remarkable Improvement of the Symptoms.*

Patient, aged 28, No. 1,163, admitted June 7, 1870; broken down and thin, having been delivered of a dead child two months before. Is now covered over with papular rash, and suffers severely from pains.

June 7—Inoculated, from her own vaginal secretion, which was hardly purulent, without result.

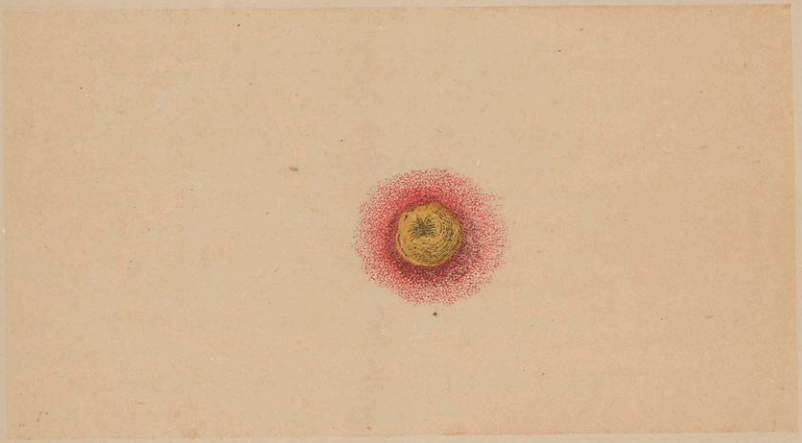
June 10—Inoculated from the pustule of 988, Series 3, the second generation of the vaginal discharge on her own person, producing a characteristic small pustule, with non-depressed centre, having a well-marked sharp-edged ulcer, I have no doubt indefinitely communicable, and in every way resembling a contagious sore.

The alleviation in the symptoms of the patient since the formation of the artificial sore is most remarkable. The rash has immensely improved. She is, however, phthisical, and left hospital free from signs, July 15.



Series 11

Case 1,185



Series 12

Case 1,220

Series 6

Case 1,060

Oldham, *fecit.*

Series 11 — Pustule produced by inoculation from the Patient's own vaginal discharge (three days old).
Series 12.—Pustule produced by inoculation from the patient's own vaginal discharge (four days old.)
Series 6.—Chancroids resulting from the coalesence of two inoculations from a vaginal discharge.

Series No. 9.—*Primary Sore—Double Suppurating Bubos—Pains —Copious Papulo-squamous Rash—Intense Cachexia and Debility —Inoculation from a Sore the Artificial Product of a Vaginal Discharge—Inoculation from the Patient's Vaginal Discharge producing a Sore on another Patient—Relief of the Symptom.*

Case No. 1,000, admitted March 26, 1870, aged 19. Left home ten months ago, and has been since on the town. Only two days before admission she observed a sore on the labium. At this date it was large, painful, pus-secreting, and without the slightest induration. There was a tender gland in the left groin.

This gland was leeched, &c., but failed to be resolved, and was opened on April 25th, giving exit to a large quantity of pus. I inoculated with this on the side, producing only an abortive pustule.

On April 30 I made a speculum examination, the parts having been before this too sore to allow it. There was not the least ulceration of the vagina or uterus, but some muco-purulent discharge.

April 30—I inoculated from the second artificially-produced pustule of a male patient, the second generation from a sore on the prepuce, but with negative result although the pustule was very vigorous.

May 2—A copious rash began to make its appearance over the entire body, and she became profoundly cachectic—in fact, a specimen of syphilitic taint.

At this date I inoculated from her own sore with negative result. The patient continued in a very prostrate and cachectic condition; tonics, stimulants, good diet, iodide of potassium, iron, and creasote being used.

On June 3 the patient had decidedly improved in general health, but another large suppurating bubo was forming in the opposite groin. I opened this, giving exit to a large quantity of thick healthy-looking pus. I also inoculated the abdomen the same day with this pus, but with a negative result.

June 8—I inoculated with her own vaginal muco-purulent discharge, but failed, though there was a slight attempt at a pustule.

June 10—I inoculated from No. 1,118, Series 2. This produced a a pustule and specific ulcer by the 13th, which became a regular chancroid, equalling a 6d. piece in size.

June 12—I inoculated the opposite side from the same source, No. 1,118, Series 2, producing also a specific sore.

On July 7 I inoculated from case forming Series 12, producing a perfectly marked pustule and sore.

On June 15 I inoculated No. 1,098, a strong woman, covered with papular rash, from her vaginal discharge, and produced a tolerable but not well-marked pustule. (This same patient, 1,098, was specially difficult

of inoculation from other sources.) From this date the symptoms steadily improved, the use of tonics and good diet being alone superadded.

It is remarkable that I failed, on April 30, to produce a pustule on this patient from an inoculated sore on a male patient, which I produced artificially from a preputial sore; yet on June 10 and June 12 I succeeded in doing so from the case 1,118, Series 2, whose sore was the descendant of a vaginal discharge.

SERIES No. 10.—*Primary Sore—No Inguinal Enlargements—Inoculation from the Artificially-produced Sore of Case* 1,118, *Series* 2.

Patient 1,085; married; aged 21; admitted May 2, 1870; W. 2. Never had children. Her husband left her, and she cohabited with another for about one week. She has now a well-marked, small, clean-looking sore at the upper part of the vulva, above the clitoris. There is no induration at the base; no inguinal enlargements or tenderness. The speculum shows no sore or abrasion, and the uterus is healthy.

May 18—I inoculated her from the sore, producing a most characteristic pustule and sore.

June 3—I inoculated the side, from vaginal muco-pus, unsuccessfully.

June 7—I inoculated the side again, from the vaginal muco-pus, unsuccessfully.

June 12—She has been troubled with flying nocturnal pains and malaise. I inoculated to-day from the artificial sore of 1,118, Series 2, the product of the vaginal discharge of 1,024, Series 1. This produced a characteristic pustule and sore, the exact resemblance of the inoculated chancroid from her own primary sore, but it was more marked and persistent.

SERIES No. 11.—*Auto-Inoculation from Vaginal Discharge—Transmission of the Auto-Inoculation to other Patients—Inoculation from the Vaginal Discharge almost without a Failure—No Rash, Pains, or Marked Constitutional Signs.*

A girl, aged 20, No. 1,185, was admitted June 1, 1870, and gave the following history, which has been several times tested, but always with the same result as to accuracy and description:—

In August last she cohabited with one person belonging to a regiment, with which he left 1st September. About the first week of September she felt irritated and sore, and got a discharge, but was never aware of a sore beyond irritation. This discharge continued ever since, very profusely, now about ten months. She states positively that she never cohabited since then with any one, and that about two weeks before admission the labia became swollen while she was hard worked as a servant. There is now considerable tumefaction of the labia, a few mucous patches are about the posterior part of the vulva, and there is a considerable thin purulent discharge. No rash, pains, &c., but she is pallid

and cachectic. Assuming the history true (which I had reason to believe it was, and that the chief annoyance had been the vaginal discharge), I carefully tested its capability of producing chancroids or pustules as follows:

On June 27, I inoculated this patient on the abdomen, from her own vaginal discharge, producing a most well-marked pustule by the 30th.

On June 27, inoculated No. 669 unsuccessfully.

On June 27, I inoculated No. 911 most successfully; now (July 4) a regular chancroid; pus secreting and soft.

On June 27, inoculated No. 1,169 most successfully.

On June 27, inoculated No. 1,112, producing a pustule on the third day, and now (July 6) a regular chancroid.

On June 27, inoculated No. 1,098, producing a pustule on the fourth day, which became a marked chancroid.

On June 29, inoculated No. 1,098, producing a pustule on the third day, and became a chancroid almost as soon as that of 27th June.

On June 30, inoculated No. 1,093, producing a pustule in twenty-four hours, which became a most vigorous chancroid.

Only two failed of all the inoculations I tried from this case.

June 29—I inoculated, from the pustule produced on the patient's own person, on a patient No. 1,167, who had resisted hitherto several attempts at inoculation from other sources, and produced a regularly formed and acute pustule in twenty-four hours; now a chancroid (July 6).

June 29—Inoculated 1,138 from the vaginal discharge, producing a pustule and sore by the 7th July.

July 4—Inoculated from her own mucous patch, unsuccessfully.

June 29—Inoculated 921, from the vaginal discharge, forming a pustule which dried up by July 6.

June 30—Inoculated 1,189, forming a pustule, and marked sore.

Some of these patients had inoculations on them at the time, as Nos. 1,112 and 1,093.

Nothing could be more potently inoculable than this discharge; the figure of the resulting pustules was most characteristic. The patient still (July 6) has no signs beyond the mucous patches. On the other hand, I have inoculated several patients from a case in hospital, suffering from vaginitis and discharge, but never succeeded in producing a pustule or even tolerable irritation.

Series No. 12.—*Vaginal Discharge only—The Primary Sore—No Marks—Constitutional Signs—Inoculation from Vaginal Discharge.*

No. 1,220.—An uncommonly fine healthy-looking girl of twenty-three was admitted July 6, 1870. She was in hospital during the last two years, on two occasions, suffering as follows:—

On June 1, 1868,—From several soft sores.

On October, 1868,—From a sloughing phagedenic sore of the nympha, followed by patches, papules, pains, and finally by ecthymatous spots here and there over the body.

The phagedenic ulceration was most acute, and was cured by the use of escharotic and local applications.

She remained without further symptoms till about ten days before admission, when she got a discharge with some pain and tenderness, and a sore formed, apparently secondary in character, at the cicatrix of the former sore near the nates; the stains left by the ecthymas are still very evident; also a wound on the arm, made about six weeks ago, presents a deep coppery stain, indicative of a latent taint.

On careful examination with the speculum, no ulcer whatever is to be seen, but there is a thick purulent vaginal discharge.

I inoculated with this on herself, on July 7, producing, by the 11th, a well-marked pustule, becoming a sore shortly afterwards.

July 7, I inoculated No. 1,193, suffering from copious patches, alopecia, and pains, and produced, by the 11th, a characteristic pustule and sore.

On July 7, I inoculated No. 921 (who was at this time partially under the influence of another inoculation), and produced, by the 11th, a perfectly formed umbilicated pustule. This patient was intensely syphilitic at the time.

On July 7, also inoculated No. 988, who was almost free from syphilitic symptoms, having been frequently inoculated, as referred to at Series 3, but produced only a small ill-formed pustule and superficial sore.

July 7, also inoculated No. 1,000 (referred to at Series 9), who had already been several times inoculated, and produced a specific, but not vigorous pustule.

July 7, inoculated No. 1,075 (referred to at Series 4), and at the time suffering from a vigorous chancroid; produced a perfect pustule and small chancroid.

This case is very interesting, as there was no rash, and the secretion from the sore could not possibly be mingled with the vaginal discharge. The sore had not the character of a primary either in appearance or secretion, and the patient might otherwise have been looked on as a specimen of rude health, but as evidenced by the stains, and the discoloration left by the wound occurring within two months, together with the reopening of the original cicatrix, the venereal taint was, though latent, still as active as ever.

Table of Remarkable Inoculations from Vaginal Discharge—all producing Characteristic Pustules and Chancroids more or less persistent, and capable of Indefinite Propagation.

Inoculation made from No. 1,024.

June 2nd, produced chancroid on No. 1,118;

which produced chancroids, - June 10, on No. 1,000.
June 12, on No. 1,000.
Do. on No. 1,085.
Do. on No. 1,159.

No. 988.

May 23,	do.	on herself. From this, June 3, on herself.
		Do. „ 10, on 1,163.
		Do. „ 12, on 1,112.
June 3,	do.	on herself.
„ 13,	do.	on herself.
„ 20,	do.	on 1,060.
„ 23,	do.	on 921; not very developed.
„ 23,	do.	on herself.

No. 1,185.

June 27,	do.	on herself. From this, June 29, on 1,167.
„ 27,	do.	on 921.
„ 27,	do.	on 911.
„ 27,	do.	on 1,169.
„ 30,	do.	on 1,189.

No. 1,140.

June 7,	do.	on herself.
„ 7,	do.	on 1,112.
„ 15,	do.	on 1,138.

No. 1,093.

June 13,	do.	on 1,075.
„ 23,	do.	on 1,189.

No. 1,060.

June 7,	do.	on herself; not very vigorous.

No. 911.

June 16,	do.	on 1,140; not very vigorous.

No. 1,220.

July 6,	do.	on herself.
„ 7,	do.	on 1,193.
„ 7,	do.	on 921.
„ 7,	do.	on 1,000; not very vigorous.
„ 7,	do.	on 988; not very vigorous.
„ 7,	do.	on 2,075; not very vigorous

These twelve cases I have selected from many others under treatment, and where the inoculations have been made so as to test the question of the source of the soft-chancroid, or usual sore.

It seems to be essential that the system shall be under the influence of the constitutional poison in order that the vaginal discharge may be capable of producing the characteristic pustule and sore. My inoculations, I think, tend to this conclusion; but I hesitate as yet to pronounce it as an invariable rule.

I have inoculated from various discharges where the syphilitic taint appeared absent, but have not succeeded. I have inoculated from the mucous patches at the anus of a child two years old, with inherited syphilis, and produced a characteristic inoculation. While in some of the cases detailed, as well as in others, I have inoculated from the mucous patches, but did not succeed. I have also failed in inoculating from large soft pus secreting sores, but succeeded in the same instance with the vaginal discharge.

If the mucous patch can be the progenitor of the soft sore, as proved in the case of the child, and as a vaginal discharge, in order to be inoculable and productive of the soft sore, seems necessarily to be co-existent with constitutional symptoms, latent as they may be, it may be reasonably concluded, though contrary to the theory entertained by many authorities, especially on the Continent, that the chancroid or soft-sore is not the result of contact with a special virus, or derived from an untainted system, but rather developed from the secretions of an individual who is thoroughly under the syphilitic influence; and by its very formation indicates this malign source.

In the series of cases tested and treated by the inoculation method, the result has been most favourable in many instances, especially in those who were most prostrated by the disease, and thoroughly cachectic. No matter what our prejudices may be, or the difficulty that we may meet in explaining satisfactorily the mode of cure, we should not, I think, neglect any proposition based on practical results, which may enable us to combat the varying phases, and subtleties of the disease with greater prospect of success. The progress made towards recovery in cases of great intensity as in those forming Series 3, 8, 9, was most striking, and was even more remarkable in a case of acute rupia, lately under my care (occurring as the first eruption after a primary sore) in a girl of twenty, who showed the most striking improvement when inoculation had been

performed; two inoculations failed, the third succeeded; the rupious crusts fell off and healed most satisfactorily within one fortnight. Every one conversant with the subject of constitutional syphilis has seen the inexplicable freaks and spontaneous cures which occur; but where after inoculation we see almost every case undergo a marked improvement, it is impossible to attribute this to some accidental or unknown cause.

The patients themselves (who are not very ready to undergo the slightest approach to an operation) from seeing the improvement in others, willingly submit to this treatment.

I do not repeat the inoculation till the previous one has healed, and sometimes this lasts three weeks or one month, and it is a remarkable physiological fact, that the more infected and debilitated the patient, as in Series 3 and 9, the greater is the resistance to the inoculation, and, when produced, the greater is the tendency to heal; while in the more vigorous and less depressed cases, as in Series 2, the contrary holds good.

Professor Boeck, the great advocate of the inoculation treatment, urges that the inoculation should be made from a previously irritated hard sore; but the source from which I obtain the infection is, I think, just as efficient, if not more so, than the sore itself would be—for long after the primary sore has healed, and when the patient is fully influenced by the constitutional ferment, I can produce these pustules, while on the other hand I have not as yet been able to produce them where the history of a previous infection, even though several months antecedent, was absent.

It is noteworthy that failures in these inoculations take place when practised, as by Professor Boeck, from the sore itself, just as they do from the vaginal discharge. I believe in the latter instance, owing to the large admixture of the vaginal mucus, as shown by microscopic examination, and it is also remarkable that while inoculations from a hard sore produce pustules which are more or less evanescent and require a succession of the operation; inoculations from the vaginal discharge produce a regular pustule which, in proportion to the cachectic condition of the patient, is more or less vigorous and enduring.

No doubt this treatment is slow, yet it can be carried on without much inconvenience to the patient, and does not prevent the use of tonic and other remedies. In this disease, so eccentric in its manifestations, we should not despise any method, but suit our treatment carefully to each case, just as with mercury, which we

see, for example, acts so incomparably well in infantile cases, yet would be destructive in many other manifestations of the same syphilitic poison.

I do not bind myself to any special rigid rule of treatment. Some cases I treat mercurially, some by the inoculation, and some by the sweating method; all have their recommendations and adaptibility to certain cases; but where constitutional cachexia exists, I think the inoculation has, on the whole, been most satisfactory, though it is more troublesome to the surgeon, and, perhaps, tedious to the patient. While on the other hand, it cannot "go wrong," as mercury, though most carefully administered, occasionally appears to do.

CONSTITUTIONAL SIGNS FOLLOWING INOCULABLE SORES.

I have now given the results of some inoculations performed from female secretions, where, undoubtedly, a syphilitic taint existed in both recipient and originator; but in addition I have also frequently inoculated patients in the hospital from their own primary sores, yet constitutional signs frequently ensued. In a previous clinical review of cases under treatment at the hospital, given in this Journal, November, 1869, I stated, what I still repeat, as the result of direct observation of the cases under my treatment, excluding from view theories, or the Continental experiences, so often adopted in this country, as to the exact division of infecting and non-infecting sores, that, as a rule, I observed all the sores—whether soft or hard—were followed by constitutional signs. In the last number of this Journal exception is taken by an ardent "dualist,"[a] in his paper on "The Treatment of Syphilis," to this statement, and sooner than admit this, the more convenient explanation is suggested—"that the women might have two kinds of venereal sores at the same time."

In that clinical review of cases I stated that of "54 cases admitted not previously diseased, but 4 had escaped constitutional infection." The patients themselves were mostly under 20 years of age, and many were only a few months from their home in the country. These were never before on the hospital books—had no signs of any previous disease—and, of course, they were regularly

[a] Dr. Barton, F.R.C.S.I., &c. Dub. Quart. Jour., May, 1870.—Some Practical Remarks on the Treatment of Syphilitic Disease.

examined, as in all such hospitals, with the speculum; but no sores could be detected. These patients had no object whatever in misstatement; on the contrary, they are generally anxious to give the fullest account of their affection, as these younger girls are much alarmed at being diseased. It is quite a mistake to suppose they wish to mislead—unlike cases in private, in young men, or the married—where there may be such a temptation; there is but little here. Of 22 of these cases selected as most certainly not previously diseased, I produced auto-inoculation successfully on 11, and 11 failed; but not one of the former failed to show constitutional signs, while only one of the latter seemed to escape at that date. The non-use of the speculum is always the favourite resort of those who uphold the dual theory of sores, but at the hospital here, both myself and my colleague, Dr. M'Dowell, very rarely indeed find a sore absolutely inside the vaginal canal. (I have the drawing of one on the back of the vaginal wall and on the uterus, which is the only true, well-marked case I have seen during two years.) Ulcers of the uterus are, no doubt, occasionally seen—associated sometimes with constitutional signs following an external sore. Both myself and my colleague have tried auto-inoculation with these, and I have tried inoculation from them on a second subject, but without result. I rather think they are simple non-specific ulcers.

The connexion between the appearance of the constitutional signs and the existence of the primary sore in the cases alluded to, was, I may say, invariable; generally before leaving the hospital, and often before the healing of the sore, they had commenced to appear. The writer, in commenting on my cases, suggests—firstly, that "these soft sores had nothing to say to the syphilitic symptoms;" but that there had existed a truly infecting sore, probably unnoticed. This is exchanging the practical for the theoretical. We do see in these 54 cases, soft sores; and 50 of these produce infection signs. Yet it is proposed to introduce another sore not seen, and by no means likely to have existed—for a truly hard sore in women is very persistent, and, therefore, not at all apt to be overlooked as supposed. "An equally satisfactory and probable" explanation is then suggested—that these soft sores were "true syphilitic chancres, in which the sign of induration was wanting." This is a very delicate "locus penitentiæ" for those who hold to the uniform character of the infecting sore—as thus one of its chief indices is given up, its next character on which stress is laid—*i.e.*, the condition of the enlarged and dense inguinal pleiad of glands, in women is by no means

marked, and thus its distinctive characters would be lost. But while endeavouring to support preconceived ideas, by supposing the existence of a sore which could not be found to exist, or that the soft sore was but an infecting sore, or hard sore—minus hardness —no explanation is attempted as to the inoculability of the sores, as to the occurrence of suppurating or inflamed bubo, or as to the appearance of the sore being the "soft sore," or "number of soft sores"—a term so well known, that I am sure it is hardly necessary to describe more in detail for the readers of the *Dublin Quarterly Journal*, and which it will, I think, be allowed, as I see many hundreds yearly, I could without difficulty recognize; and I do still form, as the writer remarks, the "strange conclusion" that the secondary syphilitic symptoms followed from them.

It is matter of daily observation at the Westmoreland Lock Hospital that infection signs follow sooner or later almost every case of primary sore; but the series of cases I have detailed, when alluding to inoculable vaginal secretions, will prove abundantly that the usually believed infecting type of sore, or glandular enlargements, is a rarity in these women, who must be accepted as the true specimens of the disease in Dublin.

I have received the most recent information on this question from the Government Lock Hospital, Aldershot. June 9, 1870, the surgeon states:—

"Undoubtedly many patients are admitted suffering from general syphilis, in whom soft sores only have been detected, with or without suppurating bubo, even while in hospital with inoculating sores only, secondary manifestations do occasionally occur."

From the Government Lock Hospital, Cork, out of 324 cases the surgeon states:—

"Amongst the sores I have not met with more than two or three which could be considered in any way indurated—almost all were superficial—secreting pus or muco-pus, without any marginal thickening, elevation, or induration; in fact, they all had the character of the soft sore. The indurated chancre in the female *being very rarely met with here.*

"Of this I am positive that I have had here several cases of what is usually known as the true Hunterian chancre, under my care in the male; and, as I have stated before, I have not had one well-marked case of the same form of chancre in the female. My experience is that the indurated chancre is not invariably followed by

rash, sore throat, &c.; it is usually so followed, but not as frequently as generally supposed."

It is remarkable that the description of the primary sores at the Lock Hospital, Cork, and here, agree so exactly—yet in both places they must be considered as, at least, the chief sources of the disease as communicated to the male population.

From the Lock Hospital, London, July 4, the surgeon states:—

"Severe secondary symptoms have also frequently occurred after soft sores. A considerable number of soft sores are also followed by symptoms; there is not much difference in their severity, whether following a hard or a soft sore."

It is evident that in the class that constitutes the contagious source of the disease in London, Aldershot, and Cork—from whence I have obtained information. It is of little importance as bearing on the future of the case, whether the primary sore be a hard, or infecting so-called, or soft non-infecting.

I am free to admit that "soft sores," with or without suppurating bubo, are found to occur as the only lesion in the male (who is usually young and vigorous at the time of its reception); and that constitutional signs often do not show themselves—general hospital and private practice in Dublin must satisfy every surgeon of this. But that there is such an established immunity from constitutional signs in these cases I cannot agree to. I believe much depends on the source from which the soft sore was derived, and also on the constitution or diathesis of the patient.

Several cases in the male, carefully noted, and under observation from their very commencement by a large class of students, prove the succession, in their usual order, of constitutional signs after soft sores tested by inoculation.

It is stated by syphilographers that suppurating bubos, or inoculable sores, are seldom, if ever, followed by constitutional evidences. That it is not so very uncommon here is shown by many examples, of which I select two:—

A healthy man, T. C., aged forty-eight, presented himself at Mercer's Hospital for treatment, a shoemaker, and the father of healthy children, seven of whom are alive, and none of whom or himself ever had any rash or other sign of disease. He contracted a sore in July last, which appeared within one week after connexion, and was situated on the inner side of the prepuce—soft, pus-secreting, about the size of a fourpenny piece, and without any glandular enlargements. I drew the attention of the class of students to this as a good specimen of the non-indurated sore

of the prepuce, and one suitable for testing the double virus theory. On the tenth day after the formation of the sore, I inoculated him on the thigh, and a most characteristic pustule formed, which went through its usual stages, of which he bears the cicatrix.

The primary healed by topical applications without any trouble in two weeks, and in four weeks afterwards a copious papular eruption appeared over the body; he got nocturnal pains, alopecia, and became cachectic; and finally with a fresh evolution of papular blotches, had severe iritis of the right eye, and had mucous patches at the mouth and anus occurring nine months after the inoculation and healing of the sore; on examining the penis at this date no cicatrix of any kind was visible.

The patient, an intelligent tradesman, avers most positively that he never was in the way of contracting disease since the occasion in July, 1869. A more marked case of constitutional infection could not be, the signs appearing in usual order from the occurrence of the sore.

J. K., a strong young man, aged twenty-two, a tailor, never before diseased. In July, 1869, contracted a soft sore, pus-secreting, extensive, and painful, on the inner side of the prepuce; this became inflamed and poured out much pus. I admitted the patient to hospital, and in a few days a lymphatic bubo formed at the root of the penis. I opened this; and with the pus I inoculated on his right side; a characteristic pustule formed, and from this one, on the 6th day, I produced another on the same side. A wax mould was taken of the parts when in this stage, which now is in the museum of the Royal College of Surgeons, and demonstrates the state of the penis, the absence of indurated glands, and the occurrence of the lymphatic bubo. In four weeks, and without leaving hospital, the evidences of constitutional infection appeared—alopecia, enlargements of the nuchal glands, and a copious fine papular eruption, and roseola covered the entire body. He was carefully treated without mercury, and with creasote. All cleared away by degrees, and now, nine months after the sore and inoculation, mucous patches affect the lip and tongue.

This patient states most positively (and he has no possible object in misleading) that he never had any other sore whatsoever, and there is no cicatrix or questionable history.

In contrast to these, the following is interesting as a case of indurated sore of two months' standing, which became *auto-inoculated* on the abdomen.

J. H., aged 40, presented himself at Mercer's Hospital, suffering from a sore on the dorsum of the penis, with a distinctly elevated and dense base, not pus-secreting and not painful. He is married,

the father of several grown-up healthy children; was never before diseased, and contracted this sore within two months. The glands in the groin are discernible to the touch, indurated, and forming a pleiad tolerably dense. He lived with his wife, and cohabited with her while having the sore.

Being a shoemaker, and sitting at his work constantly, the dorsum of the penis lay against the abdomen, and produced a well-marked inoculation. The auto-inoculated sore was distinctly indurated, on an elevated base, and identical in appearance with the sore on the penis. The glands in the groin were dense and tumid, and well-marked scattered papules appeared on the head and trunk. So interesting and characteristic of induration and inguinal enlargements were their appearances that a wax mould was taken of the parts by Mr. Lyddon, and now in the Pathological Museum, Royal College of Surgeons. He left hospital, before being cured, on July 28, 1869.

His wife, aged 38 to 40, came in, under my care, to the Lock Hospital married ward, in September, suffering from a large pus-secreting non-indurated sore, which was succeeded in due time by patches, pains, papular rash, murky skin, iritis, patches of the mouth, and cachexia.

The following married case represents the transmission of a sore, accompanied by suppurating bubo and intense constitutional infection in the husband, producing a large soft sore, without inguinal enlargement, or other signs in the wife:—

P. M., aged 23, married four years, previously healthy, was infected by a woman of the town at the latter end of February. He got a non-indurated sore at the frenum, and shortly a large suppurating bubo formed in the left groin. This was opened, and in about one month an eruption of scattered papules appeared over the body, and the bubo was healing. He now began to drink and got into poverty. Immediately the bubo became ulcerated, he became cachectic, and numerous severe ecthymatous, almost rupial, spots appeared, which are now (May 30, 1870) healing, but the sore is not yet quite well. Treated by creasote mixture and tonics.

This man's wife was admitted to the Lock Hospital on the 18th March, 1870, with a large non-indurated sore on the labium, communicated by him, and which he admits. There is no bubo or any glandular enlargement whatever. She is suckling her child, ten months old, a remarkably healthy one. The sore was much improved

in a few days, but she left the hospital uncured. I have heard that no further signs have appeared.

She is now in hospital with rupious ulceration.

The most valuable "confrontations" that are seen at the hospital are between man and wife, and are much more reliable, I think, than those between dissolute women and men. The general evidence is, as in the preceding, that the sore on the female is non-indurated, pus-secreting, and, no doubt, inoculable, yet thoroughly infecting, no matter what may be the nature of the sore in the husband.

The subjoined table gives the result of the last fifty-four cases under my care who were diseased for the first time. It will be seen how small a proportion of these escaped constitutional signs, and it affords the best criterion as to the quality of the disease prevalent in this city, and of the immensely wide influence it must have on not only the present, but the future community.

Patients with Primary Sores, Diseased for the First Time.

Nature of the Primary Sore.	Followed by					
	Papular Rash	Patches	Pains	Iritis	Roseola	
Several soft sores, auto-inoculated three times,	Yes	–	Yes	—	—	Was thoroughly cachectic.
Do., auto-inoculated, - -	Yes	—	—	—	—	
Do., do., - - -	Yes	Yes	—	—	—	
Do., do., - - -	—	Yes	—	—	—	
Do., do., twice, - -	—	—	—	—	—	Got warty vegetations at urethra.
Do., do., - - -	Yes	—	—	Yes	—	Extreme alopecia; suppurated bubo.
One sore, do., - - -	—	—	Yes	—	—	
Do., not inoculated, - -	Yes	Yes	Yes	Yes	—	
Do., do., - - -	Yes	—	—	—	Yes	Suppurating bubo.
One large, do., - -	Yes	Yes	Yes	—	—	Suppurating bubo.
Do., do., - -	Yes	—	Yes	—	—	Suppurating bubo.
Do., do., - - -	Yes	Yes	—	—	Yes	Produced a dead child.
Do., do., - - -	—	—	Yes	—	—	Extreme alopecia.
Several soft, do., - - -	Yes	—	—	—	—	Cachexia very marked.
Do., do., - - -	Yes	Yes	—	—	—	
Do., do., - - -	Yes	Yes	—	Yes	—	
Do., do., - - -	Yes	Yes	—	—	—	Produced a dead child.
Do., do., - - -	Yes	—	—	—	—	And gummata.

Patients with Primary Sores, Diseased for the First Time—continued.

Nature of the Primary Sore.	Followed by					
	Papular Rash	Patches	Pains	Iritis	Roseola	
One soft, not inoculated, - - -	Yes	—	—	Yes	—	
One large soft, do., - - -	Yes	—	—	—	—	Produced a dead child.
Do., do., - - -	Yes	—	Yes	—	—	Produced a living child.
Soft sore, - - - - - - - -	Yes	Yes	Yes	—	—	All but suppurating bubo and sore throat.
Hard sore, typically infecting, - - -	Yes	—	Yes	Yes	—	
Do., do., - - -	Scattered	—	—	—	—	
Sloughing sore, - - - - - -	—	—	—	—	—	
Do., - - - - - - -	Yes	Yes	—	—	—	
Chronic sore, - - - - - -	—	—	—	—	—	
Do., - - - - - - - -	Papulo-squamous	—	—	—	—	
Do., - - - - - - - -	—	Yes	—	—	—	With anal fissures.
Do., - - - - - - - -	—	—	—	—	—	
Large soft sore at fourchette, - - -	—	—	—	—	—	Nothing observed during 33 days succeeding.
Do., do., - - - -	—	—	—	—	—	Not seen since.
Slight sore, do., - - - -	—	Immense patchy vegetations	—	—	—	No other signs.
Ulcer of uterus, - - - - -	-	—	—	—	—	Do.
Ulcer of uterus, - - - - -	Yes	—	Yes	—	—	

Patients never before Diseased, admitted for the First Time; where the Primary was either healed or had not been recognized.

Mucous patches only	Papular	Patches	Pains	Iritis	Roseola	
3 cases	Yes	—	Yes	Yes	—	With discharge.
6 „	Yes	—	—	—	—	One produced a dead child; all had discharge.
3 „	Yes	—	Yes	—	—	One with patches of the throat and with discharge.
2 „	—	—	Yes	—	—	With discharge.
3 „	Yes	—	Yes	—	—	With discharge.
2 „	—	—	—	—	—	With discharge.